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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,105	07/31/2001	Jessica Malmberg	P01.0225	3462

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EXAMINER

BONSHOCK, DENNIS G

ART UNIT

PAPER NUMBER

2173

DATE MAILED: 04/02/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

09/919,105

Applicant(s)

MALMBORG, JESSICA

Examiner

Dennis G Bonshock

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                              |                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2 and 4</u> . | 6) <input type="checkbox"/> Other: _____                                                |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer et al., Patent #4,675,147, hereinafter Schaefer and Feller, Patent #6,343,508.

3. With regard to claim 1, Schaefer teaches a interface for a medical apparatus (see column 2, lines 53-58), a display screen and memory for storing and displaying at least two parameters (see column 3, lines 1-3 and column 4, lines 11-24), a controlling unit for displaying a representative display of each parameter as a sector in a regular polygon, and varying the display based on a difference from the normal (see column 2, lines 25-29 and column 3, lines 16-41). Although Schaefer teaches a display of sectors of readings of data relative to a normal, Feller teaches a display of sectors in a graph view that more closely resembles that as taught by the applicant (see column 1, line 40 through column 2, line 7, column 2, lines 38-49, and in figures 1-3). Feller teaches in column 2, line 45-48 the display of figure 3, where straight lines are used to delaminate sectors. It would have been obvious to one of ordinary skill in the art, having the teachings of Schaefer and Feller before him at the time the invention was made to modify the display of Schaefer to more closely resemble the display of Feller. One

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would have been motivated to make such a combination because the systems are both teaching a graphical display of multiple components so as to allow the user to see deviation from the normal by a morphing of the shape.

4. With regard to claim 2, which teaches varying the appearance only if a difference between the normal data and the signal data exceeds a predetermined threshold value, Schaefer further teaches, in column 4, lines 11-24 and in column 9, lines 39-53, a color change associated with the status exceeding some predefined value.

5. With regard to claim 3, which teaches varying the area of said sector to produce a clear visual distinction between the sector and adjacent sectors, Schaefer further teaches, in column 4, lines 3-24 and in figures 5 and 6, the deviation of area producing a visual distinction between other sectors. Feller also teaches this limitation in column 1, lines 40-62 and in figures 3 and 4, the differing area between sectors to show distinction.

6. With regard to claim 4, which teaches increasing the area if the signal data is larger than the normal data, and decreasing the area if signal data is less than normal data, Schaefer further teaches, in column 16, lines 25-51 and in figure 8 modifying the polygon in response to changes in the status signals.

7. With regard to claim 5, which teaches generating an inner regular polygon representing a lower alarm limit for at least two parameters, Schaefer further teaches, in column 2, lines 36-41, inner regular polygon representing a lower alarm limit and in column 11, lines 54-57, alarm limits.

8. With regard to claim 6, which teaches the control unit varying the sector in steps toward said lower alarm limit, Feller further teaches, in column 1, line 50 through column 2, line 7, measurements varying in steps toward some minimum or maximum limit value.

9. With regard to claim 7, which teaches the control unit varying the sector in two steps, Feller further teaches, in column 1, line 50 through column 2, line 7, measurements varying in steps toward some minimum or maximum limit value. Where it would be obvious to vary in two steps.

10. With regard to claim 8, which teaches generating an outer regular polygon representing a upper alarm limit for at least two parameters, Schaefer further teaches, in column 2, lines 36-41, outer regular polygon representing a upper alarm limit and in column 11, lines 54-57, alarm limits.

11. With regard to claim 9, which teaches the control unit varying the sector in steps toward the upper alarm limit, Feller further teaches, in column 1, line 50 through column 2, line 7, measurements varying in steps toward some minimum or maximum limit value.

12. With regard to claim 10, which teaches the control unit varying the sector in two steps, Feller further teaches, in column 1, line 50 through column 2, line 7, measurements varying in steps toward some minimum or maximum limit value. Where it would be obvious to vary in two steps.

13. With regard to claim 11, which teaches generating sectors in color, and varying color dependent on the result of a comparison, Schaefer further teaches, in column 4,

lines 11-24 and in column 9, lines 39-53, using colors to differentiate sectors and having a color change in response to exceeding some limit.

14. With regard to claim 12, which teaches the generating a regular polygon as a circle, Feller further teaches, in figures 1-3, a representation of the graph using arcs.

15. With regard to claim 14, which teaches the control unit generating at least one additional regular polygon on the display, Schaefer further teaches, in column 2, lines 32-36, the generation of a normal polygon.

16. Claims 13, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaefer, Feller, and Meier et al., Patent #6,211,887, hereinafter Meier.

17. With regard to claim 13, Schaefer and Feller teach the system for providing a display of medical measurements in the form of sectors in a polar chart using polygons to connect measurements, as rejected supra. Schaefer and Feller, however, don't teach a touch sensitive surface for accessing more detailed information with respect to the touched parameter. Meier teaches a system of viewing multiple measures on a polar chart and connecting measures with a polygon, similar to that of Schaefer and Feller, but further teaches, in column 2, lines 45-50 and column 3, lines 32-40, a system where a touch screen is present where selection can be made on the screen for entry, modification, and storage of record data. It would have been obvious to one of ordinary skill in the art, having the teachings of Schaefer, Feller, and Meier before him at the time the invention was made to modify the display of Schaefer and Feller to include the touch sensitive information providing display of Meier. One would have been motivated to

make such a combination because touch sensitive displays provide an intuitive means of selecting items on a display device.

18. With regard to claim 15, Schaefer and Feller teach the system for providing a display of medical measurements in the form of sectors in a polar chart using polygons to connect measurements, as rejected supra. Schaefer and Feller, however, don't teach the stacking of polygons, where the one with largest deviation is on top of the stack. Meier teaches a system of viewing multiple measures on a polar chart and connecting measures with a polygon, similar to that of Schaefer and Feller, but further teaches, in column 2, lines 40-45 and column 8, lines 1-15 and in figure 7, the stacking of polygons, where the one with largest deviation is on top of the stack. It would have been obvious to one of ordinary skill in the art, having the teachings of Schaefer, Feller, and Meier before him at the time the invention was made to modify the display of Schaefer and Feller to include the ability to stack multiple images on the display as did Meier. One would have been motivated to make such a combination because a group of images on the screen simultaneously provide a means of comparing related data.

20. With regard to claim 16, Schaefer and Feller teach the system for providing a display of medical measurements in the form of sectors in a polar chart using polygons to connect measurements, as rejected supra. Schaefer and Feller, however, don't teach the display of the multiple polygons in a small format, where at least one is displayed in a larger format. Meier teaches a system of viewing multiple measures on a polar chart and connecting measures with a polygon, similar to that of Schaefer and Feller, but further teaches, in column 5, lines 10-40, a system the hash marks can be

changed so as to change the size of the respective polygon. It would have been obvious to one of ordinary skill in the art, having the teachings of Schaefer, Feller, and Meier before him at the time the invention was made to modify the display of Schaefer and Feller to include the sized modification means of Meier. One would have been motivated to make such a combination because displaying some polygons in a smaller format can allow for more polygons to be displayed and free up display space for other information.

### ***Conclusion***

21. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach systems for displaying a graphical representation of measured parameters with reference to some sort of normal values.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis G Bonshock whose telephone number is (703)305-4668. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

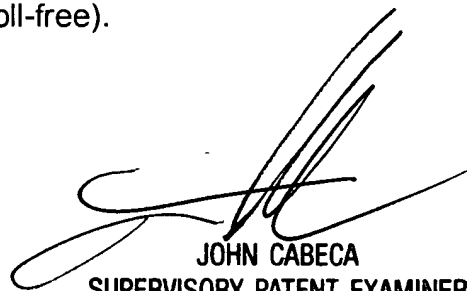
23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (703)308-3116. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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